BRUHAT BENGALURU MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Doddabommasandra old village, Katteramma Temple Roads and Surrounding areas in Ward No. 13, (Doddabommasandra).

Estimated Cost : Rs. 25.00 Lakhs

Head of Account : P-3726 Zonal Public Works - POW Works

Job Code: 013-23-000007

Name of Agency: Sri. D.A Ravindra, No. 1265, HIG Mother Dairy Road, near Karnataka Bank, Yelahanka New Town, Bengaluru - 560064.

Work order No: BMP/EE/BTP/WO/140/2022-23 D: 03-03-2023.

	Measurements Recarded on :	31-05-2023								
Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
1	Removing and resetting of footpath slab (Approved arrival rate)										
	Qty as per Premeasurement vide E-Bill Page No. 01 is =							162.00	Sqm	185.70	30083.00
2	Earth work Excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work.										
	Qty as per Premeasurement vide E-Bill Page No. 02 is =							126.75	Cum	161.60	20483.00
3	Providing and laying in position Plain Cement Concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications.										
	Qty as per Premeasurement vide E-Bill Page No. 03 is =							7.42	Cum	4826.40	35812.00
4	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand)										
	Qty as per Premeasurement vide E-Bill Page No. 04 is =							25.99	Cum	4711.70	122457.00
5	Providing ruled pointing to cursed stone masonry with lime mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost all materials, labour, usage charges of machinery, curing complete as pre specification.										
	Qty as per Premeasurement vide E-Bill Page No. 05 is =							49.50	Sqm	206.80	10237.00

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Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
6	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite / trap / basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately **Mix 1:3:6 (M10) Using 20 mm nominal size graded crushed coarse aggregate**										
	Culvert Coping										
	Munibyrappa Layout Main Road	1	3.60			1.50	0.10	0.54			
	Renukamaba Temple Road 1st Cross	1	4.20			1.50	0.10	0.63			
	Renukamaba Temple Road 2nd Cross	1	4.40			1.50	0.10	0.66			
	Renukamaba Temple Road 3rd Cross	1	5.05			1.50	0.10	0.76			
	Chamundeshwari Temple Backside	1	4.80			1.50	0.10	0.72			
	Aproova Apartment Road Backside	1	4.80			1.20	0.10	0.58			
		1	6.00			1.20	0.10	0.72			
	Ramp										
	Munibyrappa Layout Main Road	2	3.60			0.90	0.15	0.97			
	Renukamaba Temple Road 1st Cross	2	4.20			0.90	0.15	1.13			
	Renukamaba Temple Road 2nd Cross	2	4.40			0.90	0.15	1.19			
	Renukamaba Temple Road 3rd Cross	2	5.05			0.90	0.15	1.36			
	Chamundeshwari Temple Backside	2	4.80			0.90	0.15	1.30			
	Aproova Apartment Road Backside	2	4.80			0.90	0.15	1.30			
		2	6.00			0.90	0.15	1.62			
								13.47			
								12.38	Cum	4977.60	**61623.00**

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Assistant Executive Engineer
Vidyaranyapura Sub Division.

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Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
	Measurements Recarded on :	31-05-2023									
7	Providing and Fixing pre cast Covering Slab 230 mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete. As per Engineer incharge.										
	For Culvert										
	Munibyrappa Layout Main Road	1	3.60			1.20		4.32			
	Renukamaba Temple Road 1st Cross	1	4.20			1.80		7.56			
	Renukamaba Temple Road 2nd Cross	1	4.40			1.80		7.92			
	Renukamaba Temple Road 3rd Cross	1	5.05			1.80		9.09			
	Chamundeshwari Temple Backside	1	4.80			1.50		7.20			
	Aproova Apartment Road Backside	1	4.80			1.20		5.76			
								41.85			
								41.25	Sqm	3979.20	164142.00

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Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
	Measurements Recarded on :	31-05-2023									
8	Providing and Fixing pre cast Covering Slab 100 mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete. As per Engineer incharge.										
	Missing Covering Slab										
	7th Cross Road Muninarayanappa Layout										
	L/S	3	0.60			0.90		1.62			
		7	0.60			0.90		3.78			
		6	0.60			0.90		3.24			
		4	0.60			0.90		2.16			
		5	0.60			0.90		2.70			
	R/S										
		4	0.60			0.90		2.16			
		4	0.60			0.90		2.16			
		3	0.60			0.90		1.62			
		6	0.60			0.90		3.24			
	Munibyrappa Layout Krishna Temple Road										
	R/S	27	0.60			0.90		14.58			
		5	0.60			0.90		2.70			
		7	0.60			0.90		3.78			
		13	0.60			0.90		7.02			
	L/S	11	0.60			0.90		5.94			
		9	0.60			0.90		4.86			
	Munibyrappa Layout 2nd B Cross										
	L/S	7	0.60			0.90		3.78			
		6	0.60			0.90		3.24			
		8	0.60			0.90		4.32			
		4	0.60			0.90		2.16			
	2nd Cross Gas Gowdan Road										
	L/S	17	0.60			0.90		9.18			
		5	0.60			0.90		2.70			
		8	0.60			0.90		4.32			
	Kateramma Temple Road										
	L/S	7	0.60			0.90		3.78			
		4	0.60			0.90		2.16			
		38	0.60			0.90		20.52			
		13	0.60			0.90		7.02			
	Vemanna Layout Main Road										
	LHS	22	0.60			0.90		11.88			
		12	0.60			0.90		6.48			
	R/S	19	0.60			0.90		10.26			
								153.36			
								152.82	Sqm	1636.90	250151.00

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Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
	Measurements Recarded on :	31-05-2023									
9	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 m3 in volume and stock piling at designated locations and disposal of dismantled materials and stacking serviceable and unserviceable materials separately										
	Qty as per Premeasurement vide E-Bill Page No. 06 is =							132.00	Cum	366.70	48404.00
10	Construction of Dry Lean Cement Concrete Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm,aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/ m3 , optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 t vibratory roller, finishing and curing.										
	Qty as per Premeasurement vide E-Bill Page No. 07 is =							99.00	Cum	3497.70	346272.00
11	Providing and constructing un-reinforced plain Cement Concrete Pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS: 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, primer, sealant, curing of concrete slabs for 14- days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete MORTH Specification No.1501 . as per the directions of the Engineer-in-charge of the work.										
	CC Road										
	Ramaswamappa Layout 2nd Cross	1	15.00	4.70	4.05	4.38	0.15	9.84			
		1	15.00	4.05	3.90	3.98	0.15	8.94			
		1	15.00	3.90	4.60	4.25	0.15	9.56			
		1	9.50	4.60	3.10	3.85	0.15	5.49			
	Ramaswamappa Layout 3rd Cross										
		1	15.00	4.75	3.20	3.98	0.15	8.94			
		1	15.00	3.20	3.90	3.55	0.15	7.99			
		1	15.50	3.90	4.40	4.15	0.15	9.65			
	Muninaranappa Layout # 18 kastuba opp										
		1	13.50	2.15	2.25	2.20	0.15	4.46			
		1	8.10	3.65	3.25	3.45	0.15	4.19			
		1	16.40	4.65	3.40	4.03	0.15	9.90			
		1	15.00	1.90	1.60	1.75	0.15	3.94			
		1	10.30	1.60	1.20	1.40	0.15	2.16			
	Renukamba Temple Cross Road										
		1	15.00	2.10	1.80	1.95	0.15	4.39			
		1	15.00	1.80	2.00	1.90	0.15	4.28			

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Sl No	Description of work	Mesurement No.	L			B	D	Qty.	Unit	Rate	Amount
		1	12.80	2.00	2.30	2.15	0.15	4.13			
		1	2.20	3.90	4.00	3.95	0.15	1.30			
								99.16			
								99.00	Cum	5658.90	560231.00
12	Loading and Unloading of Stone Boulder / Stone aggregates / Sand / Kankar / Moorum. (Tipper 14 m3)										
	Qty Vide 90% of Item No- (2+9)							129.66			
	Total							129.66	Cum	64.30	8337.00
13	Cost of Haulage Excluding Loading and Unloading Taking output 18 t load and lead 10 km = 180 t.km										
	Qty frm Item No-12		129.66			1.28		165.96			
	Total							165.96	T.Km	91.20	15136.00
										Grand Total =	1673368.00
										GST Charges (18% of estimated cost) =	301206.00
										Total Amount =	1974574.00

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